

WHAT I CLAIM IS:

1. A duct particularly adapted for channeling a flow of cooling air to a heat sink of a processor of a personal computer, said duct comprising:
 - a body having spaced apart sidewalls connected by an inner wall and an outer wall to define an interior passageway through said body,
 - a lower section of said body having an enlarged bottom end formed with an intake opening in said outer wall and a narrow top end formed as said walls of said lower section extend upward while said sidewalls of said lower section converge inward, and
 - an upper section of said body having a narrow bottom end connecting with said narrow top end of said lower section with said inner wall of said upper section arching inward and said outer wall of said upper section diverging upward so that inner end edges of said walls of said upper section define an outlet opening,
- wherein for use, said duct is placed inside an enclosure of said personal computer so that said intake opening of said duct is positioned adjacent to vent openings in a side panel of said enclosure and said outlet opening of said duct is positioned adjacent to said processor heat sink, and air being drawn into said enclosure through said vent openings flows directly through said duct interior passageway to said processor heat sink.
2. A duct as defined by Claim 1 and further characterized by,
 - a centerline of said intake opening of said duct being laterally offset from a centerline of said outlet opening of said duct.

3. A duct as defined by Claim 1 and further characterized by,
said walls of said of said duct lower section and said upper section being formed
respectively with V-like shaped trim lines,
wherein said trim lines promote ready deduction in size of said duct.
4. A duct as defined by Claim 1 and further characterized by,
said duct lower section having a bottom edge fitting in a slot of a retaining clip prepared to
be secured to said enclosure.
5. A duct as defined by Claim 1 and further characterized by,
said duct upper section outer wall inner end edge fitting in a U-shaped flange of a retaining
strap having a flanged outer end prepared to be secured to said computer.
6. A duct as defined by Claim 1 and further characterized by,
said duct upper section prepared for installation of a fan unit by including a pair of stop
brackets and pairs of spaced apart ribs formed as part of said duct walls.
7. A duct as defined by Claim 6 and further characterized by including,
a fan unit installed in said duct upper section.
8. A duct as defined by Claim 1 and further characterized by including,
said sidewalls of said lower section being divided into separate inner and outer parts, said
sidewalls of said upper section being divided into separate inner and upper parts, and said outer
wall being divided into a separate lower section, a separate upper section lower end segment,

a separate upper section inner end segment,

an inner portion comprising said separate lower section and said separate upper section sidewall inner parts being respectively joined and connected by said inner wall, and top ends of said separate upper section sidewall inner parts connected by said separate inner end segment of said outer wall,

a lower cover comprising said separate lower section sidewall outer parts connected by said separate lower section of said outer wall,

an upper cover comprising said separate upper section sidewall outer parts connected by said separate lower end segment of said outer wall, and

spaced apart clip sets attached respectively to said sidewall inner parts of said inner portion, said separate sidewall outer parts of said lower cover and said upper cover,

wherein during use, said covers may be attached to said duct inner portion to form said interior passageway between said intake opening and said outlet opening.

9. A duct as defined by Claim 8 and further characterized,

bottom end edges of said upper cover forming seal-like fits with top end edges of said lower cover,

side edges of said upper cover forming seal-like fits with side edges of said inner portion upper section sidewall inner parts,

a top end edge of said upper cover outer wall lower end segment forming a seal-like fit with an outer end edge of said inner portion outer wall separate inner end segment, and

side edges of said lower cover forming seal-like fits with said side edges of said inner

portion separate lower section sidewall inner parts.

10. A duct as defined by Claim 8 and further characterized by,

side edges of said inner portion upper section sidewall inner parts and side edges of said upper cover sidewall outer parts having respective complementary S-like shapes.

11. A duct for installation inside an enclosure of a personal computer to channel air from outside said enclosure to a heat sink of a processor of said computer, said duct comprising:

an inner portion including spaced apart sidewall inner parts connected by an inner wall, said sidewall inner parts and said inner wall forming a lower section and an upper section, said lower section having an enlarged bottom end with said inner wall and said sidewall inner parts of said lower section extending upward and said lower section sidewall inner parts converging inward to form a narrow top end that connects with a narrow bottom end of said upper section, said inner wall of said upper section aching inward and said sidewall inner parts of said upper section extending upward, and said upper section having an outlet opening defined by an inner end edge of said upper section inner wall, inner end edges of said upper section sidewall inner parts, and an inner end edge of an inner end segment of an outer wall that connects top ends of said upper section sidewall inner parts,

a lower cover prepared for assembly to said lower section of said inner portion, said lower cover including spaced apart sidewall outer parts connected by a lower section of said outer wall with said lower cover having an enlarged bottom end formed with an intake opening,

an upper cover prepared for assembly to said upper section of said inner portion, said upper cover including spaced apart sidewall outer parts connected by a lower end segment of said

outer wall, and

spaced apart clip sets attached respectively to said inner portion sidewall inner parts and to said sidewall outer parts of said lower cover and said upper cover,

wherein for assembly, side edges of said lower cover sidewall outer parts are aligned with side edges of said inner portion lower section sidewall inner parts and then said lower cover is held in place by joinder of said clips sets carried by said lower cover and by said lower section of said inner portion, and side edges of said upper cover sidewall outer parts are aligned with side edges of said inner portion upper section sidewall inner parts, a top end edge of said upper cover outer wall lower end segment is aligned with an outer end edge of said inner portion upper section outer wall inner end segment, bottom end edges of said upper cover is aligned with top end edges of said lower cover, and then said upper cover is held in place by joinder of said clips sets carried by said sidewall inner and outer parts of said upper cover and said upper section of said inner portion.

12. A duct for installation inside an enclosure of a personal computer to channel air from outside said enclosure to a heat sink of a processor of said computer, said duct comprising an inner portion including:

spaced apart sidewall inner parts connected by an inner wall to form a lower section and an upper section,

said lower section having an enlarged bottom end with said inner wall and said sidewalls inner parts of said lower section extending upward and said lower section sidewall inner parts converging inward to form a narrow top end that connects with a narrow bottom end of said

upper section, and

 said inner wall of said upper section aching inward and said sidewall inner parts of said upper section extending upward so that an inner end edge of said upper section inner wall, inner end edges of said upper section sidewall inner parts, and an inner end edge of an outer end segment of a top wall attached to top ends of said upper section sidewall inner parts define an outlet opening,

 wherein for use, side edges of said lower section sidewall inner parts are seated against an inside surface of a side panel of an enclosure of said computer so that said lower section of said inner portion operatively aligns with vent openings in said side panel.

13. A duct as described by Claim 12 and further characterized by said duct including, a lower cover prepared for attachment to said lower section of said inner portion and as attached to form a seal-like fit with said lower section of said inner portion, and an upper cover prepared for attachable to said upper section of said inner portion and as attached to form a seal-like fit with said inner portion upper sect and said lower cover.

14. A duct as defined by Claim 12 and further characterized by said duct including, a fan unit carried in said upper section of said inner portion.

15. A duct as defined by Claim 14 and further characterized by including a pair of stop brackets and a pair of spaced apart ribs formed as part of said inner portion upper section walls for securing a location of said fan unit.